

What is Claimed is:

1. A golf ball, comprising:

a ball cover comprising a first hemispheric cup and a second hemispheric cup attached to said first hemispheric cup edge to edge to form a hollow spheroid; and

5 a solid ball core covered by said ball cover;

10 wherein said first hemispheric cup has two identical first semi-conical engagement edges symmetrically outwardly projecting at two sides thereof and two identical first semi-conical connection edges inwardly projecting between said two first semi-conical engagement edges, wherein said two first semi-conical engagement edges are symmetrically and continuously extended between said two first semi-conical connection edges so as to form a continuous first joint edge for said first hemispheric cup;

15 wherein the second hemispheric cup has two identical second semi-conical engagement edges symmetrically outwardly projecting at two sides thereof and two identical second semi-conical connection edges inwardly projecting between said second first semi-conical engagement edge, wherein said two second semi-conical engagement edges are symmetrically and continuously extended between said two second semi-conical connection edges so as to form a continuous second joint edge for said second hemispheric cup;

20 wherein a cone height of each of said first and second semi-conical engagement edges is equal to a cone height of each of said first and second semi-conical connection edges, and a size and shape of said first hemispheric cup and the second hemispheric cup are identical and symmetrical, wherein said two second semi-conical engagement edges are fittingly engaged with said two first semi-conical connection edges respectively while  
25 said two second semi-conical connection edges are fittingly engaged with said two first semi-conical engagement edges respectively, so as to integrally unite said first hemispheric cup and said second hemispheric cup together to form said ball cover.

2. A golf ball, as recited in claim 1, wherein said cone height of said first and second semi-conical engagement edges and said first and second semi-conical connection edges is equal to a radius of said first and second hemispheric cups.

3. A golf ball, as recited in claim 1, wherein said first and second hemispheric cups share a common center point and all said first and second semi-conical engagement edges and said first and second semi-conical connection edges are curved and smooth edge surfaces extended radially from said center point to a circumference of said ball cover, wherein said continuous first joint edge of said first hemispheric cup is intercrossed with said continuous second joint edge of said second hemispheric cup that said first and second semi-conical engagement edges are respectively engaged with said second and first semi-conical connection edges.

4. A golf ball, as recited in claim 2, wherein said first and second hemispheric cups share a common center point and all said first and second semi-conical engagement edges and said first and second semi-conical connection edges are curved and smooth edge surfaces extended radially from said center point to a circumference of said ball cover, wherein said continuous first joint edge of said first hemispheric cup is intercrossed with said continuous second joint edge of said second hemispheric cup that said first and second semi-conical engagement edges are respectively engaged with said second and first semi-conical connection edges.

5. A golf ball, as recited in claim 1, wherein said solid ball core comprises a first core body and a second core body attached to said first core body to form a spheroid;

wherein said first core body has a first joint portion which comprises two identical first semi-conical engagement tongues symmetrically projecting at two sides thereof so as to define two identical first semi-engagement grooves symmetrically indented between said two first semi-conical engagement tongues, wherein said two first semi-conical engagement tongues respectively define two first conically curved tongue surfaces symmetrically facing with each other, and said two first semi-conical engagement grooves respectively define two first conically curved groove surfaces symmetrically and continuously extended between said two first conically curved tongue surfaces, so as to form a continuous first joint surface for said first joint portion;

wherein said second core body has a second joint portion which comprises two identical second semi-conical engagement tongues symmetrically projecting at two sides thereof so as to define two identical second semi-engagement grooves symmetrically indented between said two second semi-conical engagement tongues, wherein said two  
5 second semi-conical engagement tongues respectively define two second conically curved tongue surfaces symmetrically facing with each other, and said two second semi-conical engagement grooves respectively define two second conically curved groove surfaces symmetrically and continuously extended between said two second conically curved tongue surfaces, so as to form a continuous second joint surface for said second  
10 joint portion;

wherein a cone height of each of said first and second semi-conical engagement tongues is equal to a cone height of each of said first and second semi-conical engagement grooves, and thus a size of the shape of said first joint portion and said second joint portion are identical and symmetrical, so that said two second semi-conical  
15 engagement tongues are fittingly engaged in said two first semi-conical engagement grooves respectively while said first semi-conical engagement tongues are fittingly engaged in said two second semi-conical engagement grooves respectively, so as to integrally unite said first joint portion and said second portion together to form said spheroid of said solid ball core.

20 6. A golf ball, as recited in claim 4, wherein said solid ball core comprises a first core body and a second core body attached to said first core body to form a spheroid;

wherein said first core body has a first joint portion which comprises two identical first semi-conical engagement tongues symmetrically projecting at two sides thereof so as to define two identical first semi-engagement grooves symmetrically  
25 indented between said two first semi-conical engagement tongues, wherein said two first semi-conical engagement tongues respectively define two first conically curved tongue surfaces symmetrically facing with each other, and said two first semi-conical engagement grooves respectively define two first conically curved groove surfaces symmetrically and continuously extended between said two first conically curved tongue  
30 surfaces, so as to form a continuous first joint surface for said first joint portion;

wherein said second core body has a second joint portion which comprises two identical second semi-conical engagement tongues symmetrically projecting at two sides

thereof so as to define two identical second semi-engagement grooves symmetrically indented between said two second semi-conical engagement tongues, wherein said two second semi-conical engagement tongues respectively define two second conically curved tongue surfaces symmetrically facing with each other, and said two second semi-conical engagement grooves respectively define two second conically curved groove surfaces symmetrically and continuously extended between said two second conically curved tongue surfaces, so as to form a continuous second joint surface for said second joint portion;

wherein a cone height of each of said first and second semi-conical engagement tongues is equal to a cone height of each of said first and second semi-conical engagement grooves, and thus a size of the shape of said first joint portion and said second joint portion are identical and symmetrical, so that said two second semi-conical engagement tongues are fittingly engaged in said two first semi-conical engagement grooves respectively while said first semi-conical engagement tongues are fittingly engaged in said two second semi-conical engagement grooves respectively, so as to integrally unite said first joint portion and said second portion together to form said spheroid of said solid ball core.

7. A golf ball, as recited in claim 5, wherein said cone height of said first and second semi-conical engagement tongues and said first and second semi-conical engagement grooves is equal to a radius of said first and second joint portions.

8. A golf ball, as recited in claim 6, wherein said cone height of said first and second semi-conical engagement tongues and said first and second semi-conical engagement grooves is equal to a radius of said first and second joint portions.

9. A golf ball, as recited in claim 5, wherein said first and second joint portions share a common center point and all said first and second conically curved tongue surface and said first and second conically curved groove surfaces of said first and second joint portions are curved and smooth surfaces extended outwardly and radially from said center point to a circumference of said solid ball core, wherein said first joint portion is intercrossed with said second joint portion that said first and second semi-conical engagement tongues are respectively engaged in said second and first semi-conical engagement grooves, and said first and second semi-conical engagement tongues are embraced by said second and first semi-conical engagement grooves respectively.

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10. A golf ball, as recited in claim 7, wherein said first and second joint portions share a common center point and all said first and second conically curved tongue surface and said first and second conically curved groove surfaces of said first and second joint portions are curved and smooth surfaces extended outwardly and radially from said center point to a circumference of said solid ball core, wherein said first joint portion is intercrossed with said second joint portion that said first and second semi-conical engagement tongues are respectively engaged in said second and first semi-conical engagement grooves, and said first and second semi-conical engagement tongues are embraced by said second and first semi-conical engagement grooves respectively.

11. A golf ball, as recited in claim 8, wherein said first and second joint portions share a common center point and all said first and second conically curved tongue surface and said first and second conically curved groove surfaces of said first and second joint portions are curved and smooth surfaces extended outwardly and radially from said center point to a circumference of said solid ball core, wherein said first joint portion is intercrossed with said second joint portion that said first and second semi-conical engagement tongues are respectively engaged in said second and first semi-conical engagement grooves, and said first and second semi-conical engagement tongues are embraced by said second and first semi-conical engagement grooves respectively.

12. A golf ball, as recited in claim 9, wherein said first and second conically curved tongue surfaces and said first and second conically curved grooves of said first second joint portions are curved and smooth surfaces are inclined from said center point at 45°.

13. A golf ball, as recited in claim 10, wherein said first and second conically curved tongue surfaces and said first and second conically curved grooves of said first second joint portions are curved and smooth surfaces are inclined from said center point at 45°.

14. A golf ball, as recited in claim 11, wherein said first and second conically curved tongue surfaces and said first and second conically curved grooves of said first second joint portions are curved and smooth surfaces are inclined from said center point at 45°.

15. A golf ball, comprising:

a ball cover having a hollow spherical shaped; and

a solid ball core, which is covered by said ball cover, comprising a first core body and a second core body attached to said first core body to form a spheroid;

wherein said first core body has a first joint portion which comprises two  
5 identical first semi-conical engagement tongues symmetrically projecting at two sides  
thereof so as to define two identical first semi-engagement grooves symmetrically  
indented between said two first semi-conical engagement tongues, wherein said two first  
semi-conical engagement tongues respectively define two first conically curved tongue  
surfaces symmetrically facing with each other, and said two first semi-conical  
10 engagement grooves respectively define two first conically curved groove surfaces  
symmetrically and continuously extended between said two first conically curved tongue  
surfaces, so as to form a continuous first joint surface for said first joint portion;

wherein said second core body has a second joint portion which comprises two  
15 identical second semi-conical engagement tongues symmetrically projecting at two sides  
thereof so as to define two identical second semi-engagement grooves symmetrically  
indented between said two second semi-conical engagement tongues, wherein said two  
second semi-conical engagement tongues respectively define two second conically  
curved tongue surfaces symmetrically facing with each other, and said two second semi-  
conical engagement grooves respectively define two second conically curved groove  
20 surfaces symmetrically and continuously extended between said two second conically  
curved tongue surfaces, so as to form a continuous second joint surface for said second  
joint portion;

wherein a cone height of each of said first and second semi-conical engagement  
tongues is equal to a cone height of each of said first and second semi-conical  
25 engagement grooves, and thus a size of the shape of said first joint portion and said  
second joint portion are identical and symmetrical, so that said two second semi-conical  
engagement tongues are fittingly engaged in said two first semi-conical engagement  
grooves respectively while said first semi-conical engagement tongues are fittingly  
engaged in said two second semi-conical engagement grooves respectively, so as to  
30 integrally unite said first joint portion and said second portion together to form said  
spheroid of said solid ball core.

16. A golf ball, as recited in claim 15, wherein said cone height of said first and second semi-conical engagement tongues and said first and second semi-conical engagement grooves is equal to a radius of said first and second joint portions.

17. A golf ball, as recited in claim 15, wherein said first and second joint portions share a common center point and all said first and second conically curved tongue surface and said first and second conically curved groove surfaces of said first and second joint portions are curved and smooth surfaces extended outwardly and radially from said center point to a circumference of said solid ball core, wherein said first joint portion is intercrossed with said second joint portion that said first and second semi-conical engagement tongues are respectively engaged in said second and first semi-conical engagement grooves, and said first and second semi-conical engagement tongues are embraced by said second and first semi-conical engagement grooves respectively.

18. A golf ball, as recited in claim 16, wherein said first and second joint portions share a common center point and all said first and second conically curved tongue surface and said first and second conically curved groove surfaces of said first and second joint portions are curved and smooth surfaces extended outwardly and radially from said center point to a circumference of said solid ball core, wherein said first joint portion is intercrossed with said second joint portion that said first and second semi-conical engagement tongues are respectively engaged in said second and first semi-conical engagement grooves, and said first and second semi-conical engagement tongues are embraced by said second and first semi-conical engagement grooves respectively.

19. A golf ball, as recited in claim 17, wherein said first and second conically curved tongue surfaces and said first and second conically curved grooves of said first and second joint portions are curved and smooth surfaces are inclined from said center point at  $45^{\circ}$ .

20. A golf ball, as recited in claim 18, wherein said first and second conically curved tongue surfaces and said first and second conically curved grooves of said first and second joint portions are curved and smooth surfaces are inclined from said center point at  $45^{\circ}$ .